

## Freeform Search

<b>Database:</b>	US Pre-Grant Publication Full-Text Database
	<b>US Patents Full-Text Database</b>
	US OCR Full-Text Database
	EPO Abstracts Database
	JPO Abstracts Database
	Derwent World Patents Index
	IBM Technical Disclosure Bulletins

  

<b>Term:</b>	L1 and hollow fibers and immersed
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<b>Display:</b>	10	<b>Documents in Display Format:</b>	CIT	<b>Starting with Number</b>	1
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**Generate:** ☐ Hit List ☒ Hit Count ☐ Side by Side ☐ Image

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### Search History

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**DATE:** Wednesday, December 22, 2004    [Printable Copy](#)    [Create Case](#)

#### Set Name Query

side by side

DB=USPT; PLUR=YES; OP=ADJ

#### Hit Count Set Name

result set

<u>L4</u>	l2 and gas and bubbles	4	<u>L4</u>
<u>L3</u>	l2 and gas bubbles	2	<u>L3</u>
<u>L2</u>	L1 and hollow fibers and immersed	26	<u>L2</u>
<u>L1</u>	3228876	192	<u>L1</u>

END OF SEARCH HISTORY

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Generate Collection

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L2: Entry 3 of 4

File: JPAB

Mar 1, 1994

DOCUMENT-IDENTIFIER: JP 06055040 A

TITLE: MANUFACTURE OF HOLLOW FIBER MEMBRANE MODULEAbstract Text (1):

PURPOSE: To use thermosetting resin of a high cure contraction coefficient and to manufacture a module in good yield by bonding and fixing both ends of a bundle consisting of a lot of hollow fiber membranes with containers other than a housing before housing the bundle to bond the hollow yarn membrane bundle and the housing together.

Abstract Text (2):

CONSTITUTION: The both ends of a hollow fiber membrane bundle consisting of a lot of hollow fiber membranes 1 are inserted into cylindrical containers made of silicone rubber and thermosetting resin such as epoxy acrylate resin is injected therein by a centrifugal adhesion method, and after the resin has been hardened, the bonded parts 2 are removed from the containers made of silicone rubber. Next, the hollow fiber membrane bundle is housed in another cylindrical housing made of stainless steel, etc., and the hollow fiber membrane bundle and the housing are bonded together and fixed by a thermosetting resin. After hardening, the bonded end parts are cut to turn the bundle into a hollow yarn membrane module.

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## Hit List

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Search Results - Record(s) 21 through 30 of 30 returned.

☐ 21. Document ID: JP 04317725 A

L5: Entry 21 of 30

File: JPAB

Nov 9, 1992

PUB-NO: JP404317725A

DOCUMENT-IDENTIFIER: JP 04317725 A

TITLE: HOLLOW FIBER MEMBRANE MODULE

PUBN-DATE: November 9, 1992

INVENTOR-INFORMATION:

NAME

COUNTRY

DOI, SHOICHI

US-CL-CURRENT: 210/500.23

INT-CL (IPC): B01D 63/02; B01D 65/00

Full	Title	Citation	Front	Review	Classification	Date	Reference				Claims	KMIC	Draw De
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☐ 22. Document ID: JP 04004024 A

L5: Entry 22 of 30

File: JPAB

Jan 8, 1992

PUB-NO: JP404004024A

DOCUMENT-IDENTIFIER: JP 04004024 A

TITLE: HOLLOW FIBER-LIKE POROUS SEPARATING MEMBRANE ELEMENT AND PRODUCTION THEREOF

PUBN-DATE: January 8, 1992

INVENTOR-INFORMATION:

NAME

COUNTRY

KANAZAWA, SHINICHI

YAMANOUCHI, SHOSUKE

US-CL-CURRENT: 210/500.23

INT-CL (IPC): B01D 63/02

Full	Title	Citation	Front	Review	Classification	Date	Reference				Claims	KMIC	Draw De
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☐ 23. Document ID: JP 03131324 A

L5: Entry 23 of 30

File: JPAB

Jun 4, 1991

PUB-NO: JP403131324A

DOCUMENT-IDENTIFIER: JP 03131324 A

TITLE: HOLLOW FIBER MEMBRANE MODULE AND PREPARATION THEREOF

PUBN-DATE: June 4, 1991

## INVENTOR-INFORMATION:

NAME

COUNTRY

YANASE, SATOSHI

HAMANAKA, KATSUHIKO

US-CL-CURRENT: 210/500.23

INT-CL (IPC): B01D 63/02

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw De
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☐ 24. Document ID: JP 03098571 A

L5: Entry 24 of 30

File: JPAB

Apr 24, 1991

PUB-NO: JP403098571A

DOCUMENT-IDENTIFIER: JP 03098571 A

TITLE: CELL CULTURE CONTAINER AND CELL CULTURE

PUBN-DATE: April 24, 1991

## INVENTOR-INFORMATION:

NAME

COUNTRY

ENOMOTO, KANEHIKO

YONEYAMA, HIROAKI

MIYAMORI, TAKAO

SAKIMAE, AKIHIRO

NUMAZAWA, RYOZO

US-CL-CURRENT: 435/297.4

INT-CL (IPC): C12M 3/00; C12N 5/06

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw De
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☐ 25. Document ID: JP 02124702 A

L5: Entry 25 of 30

File: JPAB

May 14, 1990

PUB-NO: JP402124702A

DOCUMENT-IDENTIFIER: JP 02124702 A  
TITLE: OXYGEN ENRICHER

PUBN-DATE: May 14, 1990

## INVENTOR-INFORMATION:

NAME

COUNTRY

MATSUMOTO, KENJI

TOZAWA, OSAMI

IWAMA, AKIO

US-CL-CURRENT: 96/4

INT-CL (IPC): C01B 13/02; B01D 53/22

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMIC	Draw D
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☐ 26. Document ID: JP 401207114 A

L5: Entry 26 of 30

File: JPAB

Aug 21, 1989

PUB-NO: JP401207114A

DOCUMENT-IDENTIFIER: JP 401207114 A

TITLE: FORMATION OF HIGH QUALITY GAS FOR INSTRUMENTATION APPLICATION FROM  
COMPRESSED AIR

PUBN-DATE: August 21, 1989

## INVENTOR-INFORMATION:

NAME

COUNTRY

RICE, ARTHUR W

MURPHY, MILTON K

FREEMAN, JOHN J

INT-CL (IPC): B01D 53/22; B01D 53/26

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMIC	Draw D
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☐ 27. Document ID: JP 01104271 A

L5: Entry 27 of 30

File: JPAB

Apr 21, 1989

PUB-NO: JP401104271A

DOCUMENT-IDENTIFIER: JP 01104271 A

TITLE: MEMBRANE TYPE OXYGENATOR

PUBN-DATE: April 21, 1989

## INVENTOR-INFORMATION:

NAME

COUNTRY

ANAZAWA, TAKANORI  
MURATA, KAZUTAKA  
AKASU, HIROYUKI  
MIMURA, RISHICHI

INT-CL (IPC): A61M 1/18; B01D 13/00; B01D 13/01; B01D 13/04; B01D 53/22

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw De
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☐ 28. Document ID: JP 63309177 A

L5: Entry 28 of 30

File: JPAB

Dec 16, 1988

PUB-NO: JP363309177A  
DOCUMENT-IDENTIFIER: JP 63309177 A  
TITLE: CULTURE TANK PROVIDED WITH HOLLOW FIBER GAS-SEPARATION MODULE MADE OF SILICONE RUBBER

PUBN-DATE: December 16, 1988

INVENTOR-INFORMATION:

NAME

COUNTRY

FURUSAWA, KICHIO

NAGAYANAGI, SADAMI

US-CL-CURRENT: 435/297.2

INT-CL (IPC): C12M 3/00

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw De
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☐ 29. Document ID: JP 63024890 A

L5: Entry 29 of 30

File: JPAB

Feb 2, 1988

PUB-NO: JP363024890A  
DOCUMENT-IDENTIFIER: JP 63024890 A  
TITLE: SEPARATION AND CONCENTRATION OF FERMENTATION PRODUCT

PUBN-DATE: February 2, 1988

INVENTOR-INFORMATION:

NAME

COUNTRY

OOYA, HARUHIKO

MATSUMOTO, KANJI

ARITA, MASUJIRO

SUGIMOTO, YUKINOBU

US-CL-CURRENT: 435/41

INT-CL (IPC): C12P 1/00

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw D
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**30. Document ID: JP 58040102 A**

L5: Entry 30 of 30

File: JPAB

Mar 9, 1983

PUB-NO: JP358040102A

DOCUMENT-IDENTIFIER: JP 58040102 A

TITLE: SEPARATION OF MIXED LIQUID

PUBN-DATE: March 9, 1983

## INVENTOR-INFORMATION:

NAME

COUNTRY

MOCHIZUKI, AKIRA

KUSUDO, OSAMU

HAMAMOTO, YOSHITO

TANAKA, YOSHIKI

US-CL-CURRENT: 210/644

INT-CL (IPC): B01D 13/00

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw D
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hollow fibers and membranes and silicone

30

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## Hit List

Search Results - Record(s) 21 through 30 of 30 returned.

☐ 21. Document ID: JP 04317725 A

L5: Entry 21 of 30

File: JPAB

Nov 9, 1992

PUB-NO: JP404317725A

DOCUMENT-IDENTIFIER: JP 04317725 A

TITLE: HOLLOW FIBER MEMBRANE MODULE

PUBN-DATE: November 9, 1992

INVENTOR-INFORMATION:

NAME

COUNTRY

DOI, SHOICHI

US-CL-CURRENT: 210/500.23

INT-CL (IPC): B01D 63/02; B01D 65/00

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INVENTOR-INFORMATION:

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COUNTRY

KANAZAWA, SHINICHI

YAMANOUCHI, SHOSUKE

US-CL-CURRENT: 210/500.23

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COUNTRY

YANASE, SATOSHI

HAMANAKA, KATSUHIKO

US-CL-CURRENT: 210/500.23

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YONEYAMA, HIROAKI

MIYAMORI, TAKAO

SAKIMAE, AKIHIRO

NUMAZAWA, RYOZO

US-CL-CURRENT: 435/297.4

INT-CL (IPC): C12M 3/00; C12N 5/06

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☐ 25. Document ID: JP 02124702 A

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May 14, 1990

PUB-NO: JP402124702A

DOCUMENT-IDENTIFIER: JP 02124702 A  
TITLE: OXYGEN ENRICHER

PUBN-DATE: May 14, 1990

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MATSUMOTO, KENJI

TOZAWA, OSAMI

IWAMA, AKIO

US-CL-CURRENT: 96/4

INT-CL (IPC): C01B 13/02; B01D 53/22

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Aug 21, 1989

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DOCUMENT-IDENTIFIER: JP 401207114 A

TITLE: FORMATION OF HIGH QUALITY GAS FOR INSTRUMENTATION APPLICATION FROM  
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PUBN-DATE: August 21, 1989

## INVENTOR-INFORMATION:

NAME

COUNTRY

RICE, ARTHUR W

MURPHY, MILTON K

FREEMAN, JOHN J

INT-CL (IPC): B01D 53/22; B01D 53/26

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☐ 27. Document ID: JP 01104271 A

L5: Entry 27 of 30

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Apr 21, 1989

PUB-NO: JP401104271A

DOCUMENT-IDENTIFIER: JP 01104271 A

TITLE: MEMBRANE TYPE OXYGENATOR

PUBN-DATE: April 21, 1989

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NAME

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ANAZAWA, TAKANORI  
MURATA, KAZUTAKA  
AKASU, HIROYUKI  
MIMURA, RISHICHI

INT-CL (IPC): A61M 1/18; B01D 13/00; B01D 13/01; B01D 13/04; B01D 53/22

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COUNTRY

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NAGAYANAGI, SADAMI

US-CL-CURRENT: 435/297.2

INT-CL (IPC): C12M 3/00

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KUMC	Draw D
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☐ 29. Document ID: JP 63024890 A

L5: Entry 29 of 30

File: JPAB

Feb 2, 1988

PUB-NO: JP363024890A  
DOCUMENT-IDENTIFIER: JP 63024890 A  
TITLE: SEPARATION AND CONCENTRATION OF FERMENTATION PRODUCT

PUBN-DATE: February 2, 1988

INVENTOR-INFORMATION:

NAME

COUNTRY

OOYA, HARUHIKO

MATSUMOTO, KANJI

ARITA, MASUJIRO

SUGIMOTO, YUKINOBU

US-CL-CURRENT: 435/41

INT-CL (IPC): C12P 1/00

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMIC	Draw De
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☐ 30. Document ID: JP 58040102 A

L5: Entry 30 of 30

File: JPAB

Mar 9, 1983

PUB-NO: JP358040102A

DOCUMENT-IDENTIFIER: JP 58040102 A

TITLE: SEPARATION OF MIXED LIQUID

PUBN-DATE: March 9, 1983

## INVENTOR-INFORMATION:

NAME

COUNTRY

MOCHIZUKI, AKIRA

KUSUDO, OSAMU

HAMAMOTO, YOSHITO

TANAKA, YOSHIKI

US-CL-CURRENT: 210/644

INT-CL (IPC): B01D 13/00

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMIC	Draw De
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hollow fibers and membranes and silicone

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